

PATENT

Atty Docket No.: 10014769-3
App. Ser. No.: 10/697,940

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks.

By virtue of the amendments above, Claims 6, 20, 21, and 25 have been amended without prejudice or disclaimer of the subject matter contained therein. Claims 2-4, 6-9, and 20-29 are pending in the present application, of which Claims 6, 20, and 25 are independent.

No new matter has been introduced by way of the claim amendments; entry thereof is therefore respectfully requested.

Allowable Subject Matter

The indication that Claim 9 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, 2nd paragraph and to include all of the features of the base claim and any intervening claims is noted with appreciation. At this time, Applicants have elected not to incorporate the features of Claim 9 into independent Claim 6 because it is believed that Claim 6 and the remaining claims that depend therefrom are also allowable over the cited documents of record. The Applicants, however, reserve the right to make such an amendment in the future should they decide to do so.

The indication that Claims 19-24 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112, 2nd paragraph is also noted with appreciation. Independent Claim 20 has been amended to overcome the rejections under 35 U.S.C. § 112, 2nd paragraph, as noted herein below. For at least this reason, it is respectfully submitted that independent Claim 20 and the claims that depend therefrom are allowable over the cited documents of record.

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Drawings and Information Disclosure Statement

The indication that the Drawings submitted on October 31, 2003 have been accepted and that the references cited in the Information Disclosure Statement, also submitted on October 31, 2003, have been considered is noted with appreciation.

Abstract of the Disclosure

The Official Action has objected to the Abstract of the Disclosure under MPEP § 608.01(b) as allegedly purporting to the merits of the present application. The Abstract of the Disclosure has been amended in minor respects to be in better compliance with the provisions set forth in MPEP § 608.01(b). Accordingly, the Examiner is respectfully requested to withdraw the objection to the specification. No new matter has been introduced by way of this amendment.

Claim Rejection Under 35 U.S.C. § 112, second paragraph

The Official Action sets forth a rejection of Claims 2-4, 6-9, and 19-24 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. This rejection is respectfully traversed in light of the amendments above and the comments below.

Claims 6 and 20 have been rejected on the allegation that the "term 'close' is a relative term which renders these claims, and the claims depending therefrom, indefinite." The Official Action also states that this term is not defined by the claims and that "the specification does not provide a standard for ascertaining the requisite degree, and one of

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ordinary skill in the art would not be reasonably apprised of the scope of the invention." The Applicants respectfully disagree with this assertion.

It is respectfully submitted that the term "close" is defined at least in the paragraph beginning on page 9, line 1. More particularly, this section of the specification states that the distance between the second ends and the heat sinks 46 and/or the components 48 may be set such that the impinging zone of the fluid flow is substantially directly located within the area of the heat sinks 46 and/or the components 48. This definition of the relative proximity of the second ends of the nozzles and the heat sinks 46 and/or the components 48 would clearly enable those of ordinary skill in the art to reasonably understand the invention as set forth in Claims 6 and 20.

Nevertheless, Claims 6 and 20 have been amended to remove the term "close" to further prosecution of the present application.

Claims 6 and 20 have also been rejected on the alleged basis that it is unclear as to whether the "heat generating components" form part of the claimed invention. Claims 6 and 20 have been amended to recite that the claimed systems respectively include the plurality of heat generating components. In this regard, the plurality of heat generating components have been positively recited in relation to the nozzles and thus form part of the claimed invention as set forth in Claims 6 and 20.

Claim 21 has been rejected as allegedly failing to be recited as part of a proper Markush claim. Claim 21 has been amended to recite the list of heat generating components in Markush format as suggested by the Examiner to further prosecution of the present application.

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As all of the alleged rejections of Claims 2-4, 6-9, and 19-24 have been addressed and overcome, the Examiner is respectfully requested to withdraw the rejection of these claims as being indefinite.

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 2-4 and 6 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,076,346 to Otsuka. For at least the reasons set forth below, Otsuka et al. fails to teach or suggest all of the features of at least independent Claim 6. Accordingly, independent Claim 6, and the claims that depend therefrom, are allowable over the disclosure contained in Otsuka.

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Claim 6, as amended, pertains to a system comprising, *inter alia*, a plurality of heat generating components and a cooling system. The cooling system includes a plurality of nozzles that connect to a plenum at a first end and terminate at a location with respect to respective ones of the heat generating components such that the heat generating components are within respective impinging zones of the cooling fluid flowing out of the nozzles. The cooling system also includes a valve located along each of the nozzles, a blower controller, and a pressure sensor situated to measure the pressure of the fluid contained in the plenum. In addition, the blower controller is operable to vary an output of the fluid from a blower on the basis of the measure pressure of the fluid in the plenum.

In contrast to the claimed invention as claimed in Claim 6, Otsuka fails to disclose heat generating components and that the heat generating components are positioned within respective impinging zones of cooling fluid flowing out of a plurality of nozzles, as claimed in Claim 6. Instead, Otsuka discloses a duct type of air conditioner positioned to supply airflow to multiple rooms. As best illustrated in Figure 2 of Otsuka, the air conditioner includes a blower 2 and a plenum 3 through which airflow from the blower 2 is supplied into the rooms. Otsuka discloses that the blower 2 is controlled based upon signals received from room thermostats 5a-5d and a pressure sensor 19 located in the plenum 3. Otsuka further discloses that the airflow from the plenum 3 is supplied into each of the rooms through respective VAVs 14a-14d, each of which includes a damper 4a-4d.

For at least the foregoing reasons, it is respectfully submitted that Otsuka fails to disclose each and every element claimed in independent Claim 6 and thus cannot anticipate this claim. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claim 6 and to allow this claim.

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Claims 2-4, are also allowable over the cited documents of record at least by virtue of their dependencies upon allowable independent Claim 6. These claims are also allowable over Otsuka for additional reasons. For instance, Otsuka fails to disclose the use of temperature sensors configured to measure the temperatures of the heat generating components as claimed in Claim 3. In addition, Otsuka fails to disclose that valve controllers are operable to independently control each of the valves based upon anticipated amounts of heat predicted to be generated by each of the heat generating components as claimed in Claim 4.

Double Patenting

Claims 2-4, 6-8, and 25-29 have been rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1, 3-5, 7-10, 12, and 13 of U.S. Patent No. 6,574,104 B2 (herein after "the '104 Patent"). This rejection is respectfully traversed because independent Claims 6 and 25, as amended, contain features that are not disclosed in nor obvious over the disclosure contained in the '104 Patent.

Claim 6, for instance, has been amended to include a plurality of heat generating components and a cooling system. The cooling system includes a plurality of nozzles that connect to a plenum at a first end and terminate at a location with respect to respective ones of the heat generating components such that the heat generating components are within respective impinging zones of the cooling fluid flowing out of the nozzles. The cooling system also includes a valve located along each of the nozzles, a blower controller, and a pressure sensor situated to measure the pressure of the fluid contained in the plenum. In

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addition, the blower controller is operable to vary an output of the fluid from a blower on the basis of the measure pressure of the fluid in the plenum.

The Official Action correctly indicates that the '104 Patent discloses the use of vents for supplying cooling airflow from a plenum and into a data center instead of nozzles. However, the '104 Patent fails to include the feature in Claim 6 that the nozzles include valves configured to independently vary a flow of cooling fluid through each of the nozzles. In addition, the '104 Patent does not disclose that the vents terminate at locations with respect to respective ones of the heat generating components and that the heat generating components are positioned within respective impinging zones of cooling fluid flowing out of the plurality of nozzles, as claimed in Claims 6 and 25.

For at least the foregoing reasons, it is respectfully submitted that the '104 Patent fails to disclose each and every element claimed in independent Claims 6 and 25. It is additionally submitted that the proposed replacement of vents in the '104 Patent with nozzles would still fail to yield all of the features claimed in Claims 6 and 25. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 6 and 25 and to allow these claims.

Claims 2-4, 7, 8, and 26-29 are also allowable over the cited documents of record at least by virtue of their respective dependencies upon allowable independent Claims 6 and 25.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

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Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: February 28, 2006

By



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